CHAPTER 4 – CUMULATIVE IMPACTS

This section of the EIS considers how the environmental impacts of the proposed action would interact cumulatively with the impacts of other reasonably foreseeable (planned or programmed) projects in the Central Waterfront area. Several projects have been identified with potential effects similar to those that would occur if the proposed action were implemented. Uncertainties exist in the construction timing and features of these projects, so the discussion below is limited to generally anticipated effects of these projects. Cumulative impacts are impacts that could result when relatively minor independent impacts from multiple projects become collectively substantial over time if not properly mitigated.

A summary of these other independent projects, activities associated with them, and their proposed timelines are described below.

Other Waterfront Planning Efforts

There are currently several planning and design efforts underway for the Seattle waterfront. The cumulative effects to various elements of the environment resulting from construction or operation of these other independent projects, along with the proposed project, would vary depending upon their actual timing and the alternative selected for construction.

SR 99: Alaskan Way Viaduct and Seawall Replacement Project

In 2004, WSDOT, the Federal Highway Administration, and the City identified the tunnel as the project's preferred alternative. The elevated structure is also being carried forward as an alternative. The team is continuing environmental and design work on the Tunnel and Elevated Structure Alternatives. The conversation on how the Viaduct replacement will be constructed is just beginning and no

decisions have been made yet on the length of construction or traffic closures. Assuming funds are available, major construction could begin in 2009. A significant piece of the Viaduct project involves replacement of the Alaskan Way Seawall. The seawall is the nearshore boundary for the Master Parks Plan project area.

Seattle Aquarium Expansion

The Central Waterfront Master Plan, adopted in 1997, set forth a direction for development of the waterfront from Piers 62/63 to Waterfront Park. The Plan was recently amended to emphasize retention of the Aquarium at Pier 59 and retention of Piers 62/63 as open space. The pier is currently being structurally renovated and expansion of the Aquarium within Pier 59 is underway. The 2000 conceptual design proposed that further expansion of the Aquarium be in a new structure that would wrap around the historic Pier 59 structure. Plans to expand the Aquarium are still in pre-design stages. Actual construction may be years away, and the design may be considerably different than the currently proposed configuration suggests.

Seattle Ferry Terminal at Colman Dock

To address issues associated with a deteriorating structure, improve the customer experience, and address traffic concerns on city streets, Washington State Ferries (WSF) is planning a new, updated Colman Dock. The new facility will include expanded retail and commercial activities, and will help revitalize the Seattle waterfront.

Planning for a new Colman Dock is just beginning. Over the past year, WSF planners have explored a range of possibilities for the terminal. Beginning in Spring 2005, public meetings were held to share these concepts and to discuss goals and issues related to the project. Work has also begun on an EIS. Funding to upgrade the ferry terminal is included in the State Transportation Commission's budget, while funding for design and construction of the retail and commercial elements of the project will come from the private sector.

Olympic Sculpture Park

The Olympic Sculpture Park will transform Downtown Seattle's last undeveloped waterfront property from a former industrial site into a vibrant new green space for people to experience art. The top of the park, at the City's edge, will feature a

7,000-square-foot glass and steel pavilion to house special events, temporary exhibitions, public programs, and a café. The park, now under construction and scheduled to open in mid-2006, will serve as the third venue for the Seattle Art Museum (SAM), along with SAM Downtown and the Seattle Asian Art Museum at Volunteer Park.

Cumulative Operational Impacts

No substantial adverse environmental cumulative impacts were identified as a result of the several waterfront projects considered. However, a number of beneficial environmental effects would accrue as a result of the planned changes in the Central Waterfront area.

Burial of Contaminated Materials

Various areas of the Central Waterfront are known to have sediment contamination. In-water work for other projects, such as the Seattle Ferry Terminal Project, may involve sediment capping. Sediment capping is a commonly accepted means of containing contamination where cleanup by excavation is impractical. Placement of habitat enhancement materials, as proposed in the Master Parks Plan for the project area, would cover existing bottom sediments with several feet of clean material, effectively removing any existing contamination from the biologically active zone. If the Seattle Ferry Terminal project utilized this form of sediment cleanup, there would be a beneficial cumulative effect along the waterfront.

Removal of Creosote-Treated Materials

All in-water construction projects, including maintenance and preservation projects, in the Puget Sound are replacing creosote-treated materials with alternative materials, such as concrete and steel. The current pile and deck replacement project at the Seattle Aquarium is replacing creosote-treated piles and decking, thereby reducing the amount of these materials in the Central Waterfront area. Demolition of Piers 62/63 and Waterfront Park, as well as reconstruction of the Seattle Ferry Terminal, will cumulatively add to these long-term water quality and sediment quality benefits.

Reduction of Over-Water Coverage in the Nearshore

As proposed, the alternative concepts in the Parks Master Plan would contribute to less over-water coverage along the shoreline in the project area. Preliminary concepts for the Seattle Aquarium expansion similarly would move the overwater structure farther offshore from the seawall. In addition, one concept for the Seattle Ferry Terminal project is to move the car holding area deck offshore in order to provide a corridor of light along the seawall with reduced overwater structure. Decreasing over-water coverage would allow more light along the nearshore, which would in turn increase the amount of habitat suitable for aquatic vegetation. A larger portion of the waterfront would be at water depths that receive sufficient sunlight to support plant growth.

A further cumulative beneficial effect of these projects is for the creation of a shoreline corridor that is much more favorable to juvenile salmon. A key concern for juvenile salmon migrating along the downtown Seattle waterfront is the lack of low energy, high productivity habitat that would enable the fish to grow rapidly, thereby outgrowing potential predators. The habitat enhancement features of these projects, including recent beach construction at the Olympic Sculpture Park, would be a series of enhanced habitat areas along the Seattle waterfront that may enhance juvenile salmon growth rates and improve their chances for successful migration along the Seattle Waterfront.

Visual Benefits

Opportunities for a cumulative improvement in views of Elliott Bay and the Olympic Mountains would be increased as a result of the Central Master Plan alternatives and the Viaduct's Tunnel Alternative. Removal of the Viaduct would improve views of the cityscape, waterfront, and Elliott Bay.

Noise Benefits

Depending on the alternatives chosen, there could be a decrease in noise associated with special events at Piers 62/63 and traffic noise on the Alaskan Way Viaduct. Cumulative noise levels are not expected to increase as a result of the various projects.

Cumulative Construction Impacts

During construction, all of the projects would have similar temporary, short-term impacts:

- Noise disturbance from construction, which would vary with the time of day and stage of construction
- Traffic congestion and possibly reduced parking as a result of increased truck traffic to and from the project site on Alaskan Way
- Police, fire, and medical services may experience increased response times as a result of traffic congestion
- Existing utilities would be disconnected during demolition activities
- Pile removal and installation and construction along the Alaskan Way Seawall would have temporary, minimal effects on water quality resulting from turbidity, resuspension of contaminated sediments, and potential accidental spills
- Slopes and bottom sediments in the project area would be affected by in-water construction along the waterfront
- Recreational activities occurring along the waterfront would be temporarily suspended during demolition and reconstruction
- Views would potentially be blocked

Mitigation

It is likely that the following measures would be implemented to mitigate for these construction impacts:

- All construction activities would be conducted in compliance with the City's noise regulations. If night work were required, an appropriate variance would be obtained.
- Construction Traffic Plans and Utility Relocation Plans would be coordinated among the various projects.
- Entrances to the Seattle Aquarium may require some relocation or modification, but access would still be provided.

- Parks would coordinate with the other project teams to ensure that possible cumulative construction effects are minimized.